DAND Project 1. Exploring Weather Trends
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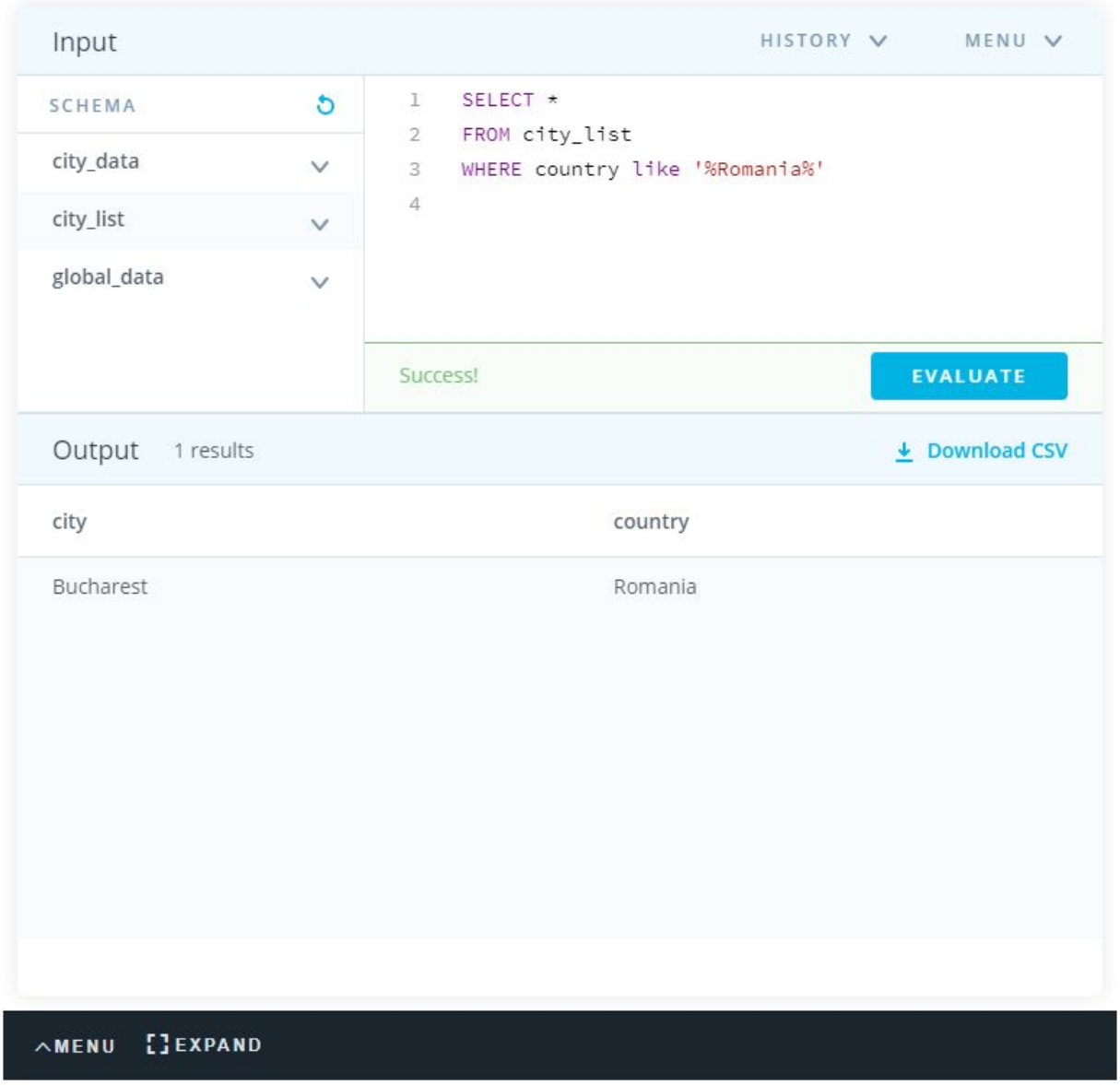
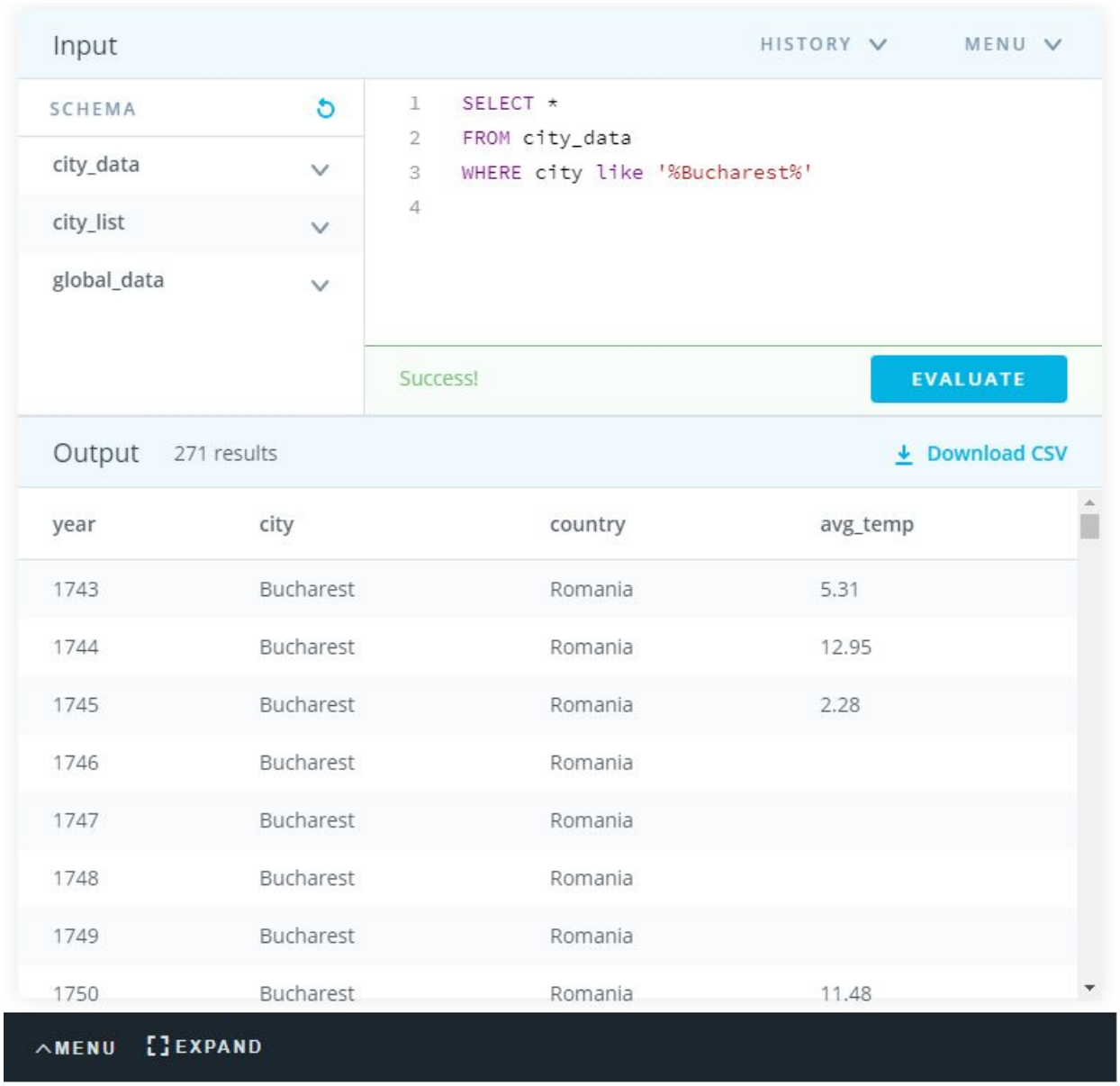
1.Extract the data

I searched in the city_list for Romania as a country and the nearest city.It resulted only 1 row with Bucharest.

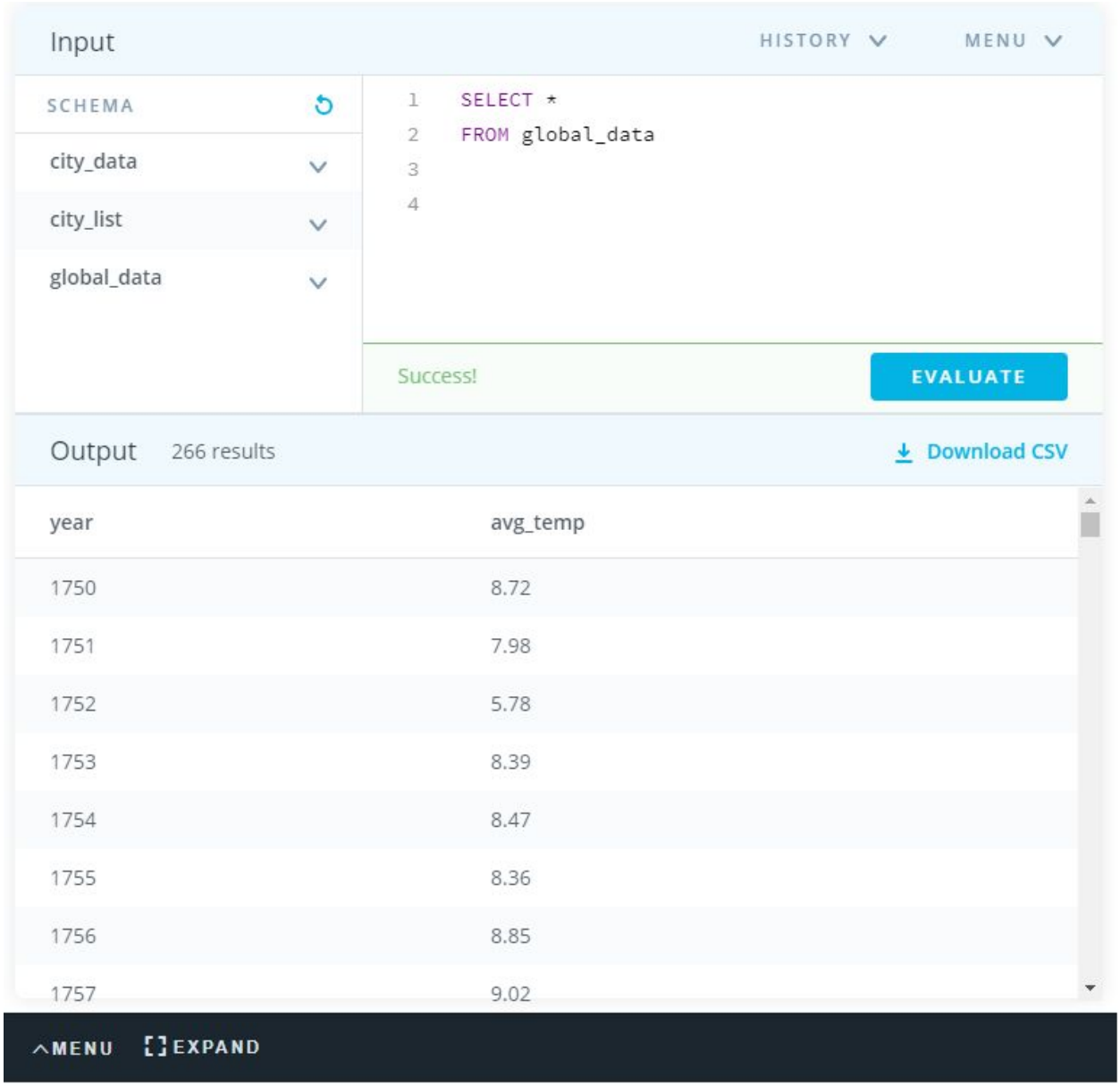


SQL query to extract the city level data:



As we can see, for Bucharest from city_data, query returned 271 results with some missing data for rows from 1746 to 1749, included.

SQL query to extract the global data:



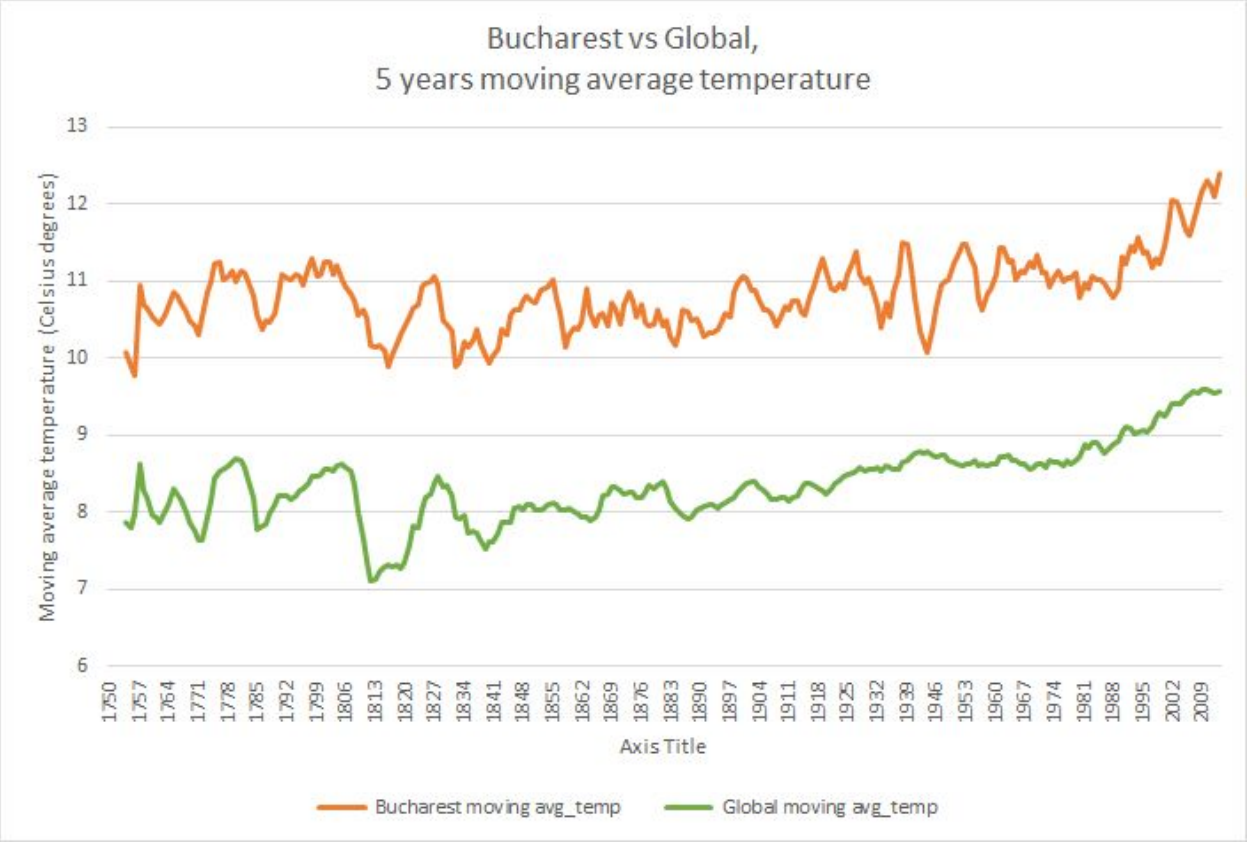
3.Open up the CSV

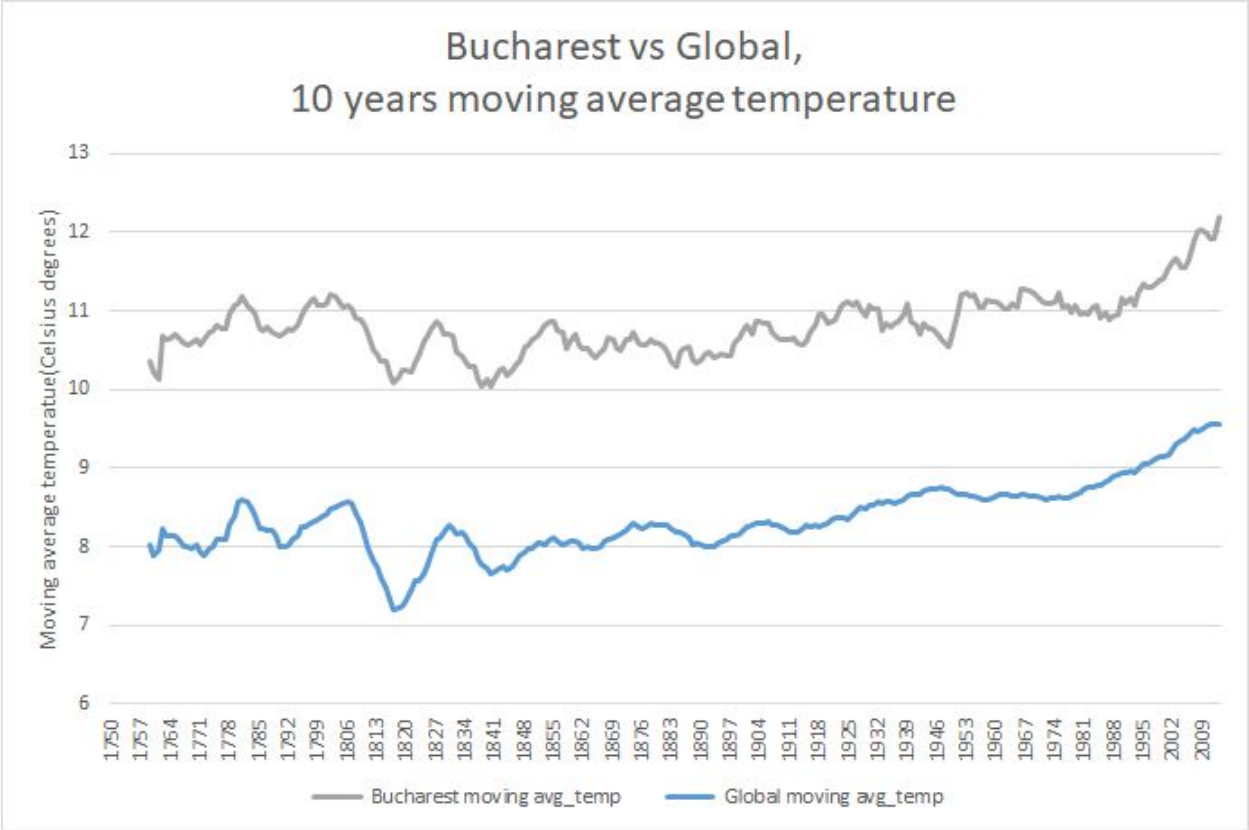
After I exported data in csv format I decided to use Microsoft Excel.
I noticed that starting with year 1750 and untill year 2013, included, data from city_data and data from global_data tables, overlap.

As there is some missing data in city_data table, I decided to focus my analyse only to a period of time from year 1750 to year 2013, included.

4.Create a line chart

From Excel, as presented in the Udacity course, I calculated the moving average temperature for Bucharest and Global, at first for a period of 5 years and then for 10 years.
Afterwards I used this data to plot a line chart for the 5 years moving average temperatures and for 10 years temperatures.





5.Observations

5.1 As we can observe from both line charts, the average temperature in Bucharest is higher than the average Global temperature.

5.2.Average temperature changes in Bucharest compared to the changes in the global average are consistent over time, in average of 2.47 Celsius degrees and a standard deviation of 0.20 Celsius degrees.

5.3 The overall trend is ascending , temperatures are getting higher, in Bucharest and all over the world.

5.4 The exception is only between years 1808 untill 1817, included when was registred a decrease of temperature both for Bucharest and for Global.

5.5 We can observe that average temperature in Bucharest is positive correlated with the average Global temperature.